CLAIMS

I (We) claim:

1. A method of using a surgical cable system comprising the steps of providing a surgical cable having a free end and a permanent clamp on the other end, looping said cable around skeletal bones, passing said free end through said permanent clamp, passing said free end through a provisional clamp, passing said free end through a manually operated tensioner, manipulating said tensioner to put tension on said cable and draw said free end through said permanent clamp and said provisional clamp reducing said loop, said provisional clamp automatically permitting passage of said cable in one direction, operating a stop in said permanent clamp when said bones are in a predetermined spatial relationship whereby said cable is crimped and the size of said loop is set and said skeletal bones are fixed in said predetermined relationship.

2. A method of claim 1 further comprising sequentially manipulating said tensioner to release said tension on said cable, moving said tensioner along said cable toward said permanent clamp and re-applying tension on said cable to draw said free end through

said permanent clamp and further reduce said loop.

3. A method of claim 2 further comprising the steps of removing said tensioner from said cable.

4. A method of claim 3 further comprising the steps of manually releasing said tension in said provisional clamp and removing said provisional clamp from said cable.

5. A method of claim 1 further comprising the steps of removing said tensioer from said cable, manually releasing said tension in said provisional clamp and removing said provisional clamp from said cable.

6. A surgical cable system for forming a loop about bones and fixing the bones in a spatial relationship comprising a surgical cable with a permanent clamp on one end and a free end, said permanent clamp having a cable bore for accepting said free end of said cable, said permanent clamp including a stop in said cable bore, said stop having a first position permitting advancement of said free end through said cable bore and a second position preventing retrograde movement of said cable.

7. A surgical cable system of claim 6 comprising a lateral bore intersecting said cable

bore, a mandrel ins said lateral bore adapted to expand radially and said stop slidably connected to said mandrel.

8. A surgical cable system of claim 6 comprising a multifilament cable.

9. A surgical cable system of claim 8 comprising approximately 100 to 150 filaments twisted to define a cable of great flexibility.

10. A surgical cable system of claim 6 comprising a provisional clamp, said provisional clamp having a bore therethrough for accepting said free end of said cable beyond said permanent clamp, said bore including a mechanism for contacting said cable to permit advancement of said free end and to prevent retrograde movement thereof.

11. A surgical cable system of claim 10 comprising a slot connected to said bore, a roller bearing in said slot, said roller bearing spring biased to obstruct said bore.

12. A surgical cable system of claim 10 comprising a tensioner instrument for engaging said free end of said cable beyond said provisional clamp, said instrument including a shaft with a cable guide for receiving said free end of said cable and a handle end, a cable chuck for grasping said free end of said cable between said handle end and said

guide, said cable chuck slidably mounted on said shaft, said cable chuck adapted to grasp said free end of said cable as said chuck slides toward said handle end.

13. A surgical cable system of claim 12 comprising a clutch mechanism connected to said cable chuck, said clutch mechanism moving with said cable chuck to release said grasp of said cable chuck.

14. A surgical cable system of claim 12 comprising pivoting hand grips attached at said handle end to said cable chuck and said shaft whereby manipulation of said handgrips slides said cable chuck relative to said shaft.

15. A surgical cable system of claim 12 comprising said cable guide adapted to engage said mechanism on said provisional clamp and release said contact with said cable whereby said provisional clamp may be removed from said cable.

16. A surgical cable system of claim 9 comprising a tensioner instrument for engaging said free end of said cable beyond said permanent clamp, said instrument including a shaft with a guide for receiving said free end of said cable and a handle end, a cable chuck for grasping said free end of said cable beyond said guide, said cable chuck slidably mounted on said shaft, said cable chuck adapted to grasp said free end of said cable as said chuck slides toward said handle end.

17. A surgical cable system of claim 6 comprising a tensioner slidably connected to said free end of said cable, said tensioner having a shaft with a cable guide on one end and a cable chuck on the other, said cable extending through said cable guide, said chuck having a passage intersected by a spring loaded clutch, said cable passing through said passage, said clutch obstructing said passage and preventing movement of said cable.

18. A surgical cable system for forming a loop about bones and fixing the bones in a spatial relationship comprising a cable having a permanent clamp at one end and a free end, a cable bore in said permanent clamp through which said free end passes forming a loop, a stop in said cable bore permitting said free end of said cable to slide reducing said loop and preventing retrograde movement of said free end of said cable, a provisional clamp having a bore therethrough, said bore aligned with said cable bore, said bore including a mechanism contacting said free end of said cable to permit reduction of said loop and preventing retrograde movement of said cable, and a tensioner having a shaft with a guide and a handle spaced therefrom, said free end of said cable extending through said guide, a cable chuck slidably attached to said shaft near said handle, said free end of said cable extending through said cable chuck, said cable chuck grasping said cable whereby said free end of said cable is moved as said cable chuck slides toward said handle.

19. A surgical cable system of claim 18 comprising a multifilament cable.

20. A surgical cable system of claim 18 comprising said provisional clamp in contact with said permanent clamp with said bore aligned with said aperture and said provisional clamp in contact with said working end of said tensioner.

21. A surgical cable system of claim 18 comprising pivoting hand grips on said handle attached to said shaft and said cable chuck, manipulation of said handgrips sliding said cable chuck along said shaft.

22. A surgical cable system of claim 18 comprising said chuck adapted to cooperate with said mechanism to permit retrograde movement of said cable to remove said provisional clamp from said cable.

23. A surgical cable system of claim 18 comprising a clutch arm on said cable chuck, manipulation of said clutch arm releasing said grasp and permitting removal of said tensioner from said cable.